



MSR57P Guardmaster Speed Monitoring Safety Relay Firmware Update

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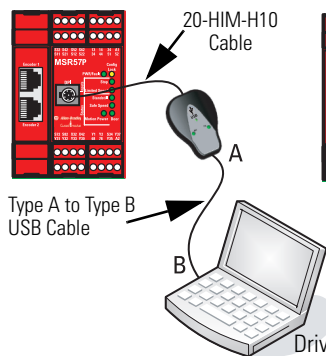
About This Publication

This document explains how to install new firmware into the MSR57P safety relay. These release notes correspond to revision 1.006 of the MSR57P firmware.

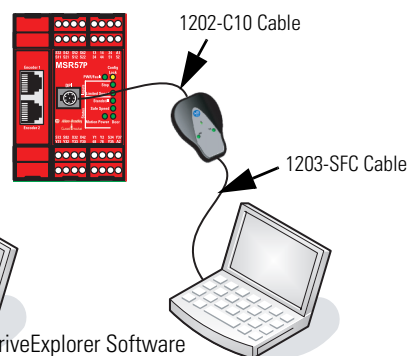
Before You Begin

The procedure assumes that you have DriveExplorer software, version 5.02.07 or later, installed on your computer and you have successfully connected to the MSR57P relay.

Using USB Converter



Using Serial Converter



TIP

If you do not have DriveExplorer software, you can download the free version, DriveExplorer Lite, at http://www.ab.com/drives/driveexplorer/free_download.html.



Save Your MSR57P Configuration to Your Computer

IMPORTANT

The firmware update process deletes the configuration and restores the default parameters. If you save your configuration to your computer, you can reload it following the update.

1. Launch DriveExplorer software and connect to the relay.
2. In the tree view, expand the MSR57P relay.
3. Expand the Parameter groups and select the Security group.
4. Place the relay in Run mode by setting the P6 [Operating Mode] parameter to 1.
5. Record the value of the P10 [Signature ID] parameter.
You will need to verify that this value is unchanged after you reload your configuration following the update.
6. From the Actions menu, choose Upload and Save to save your configuration.
7. Browse to the directory where you want to save your file.
8. Name the file and click Save.

This is the current configuration of the MSR57P relay. Once the firmware update is complete, you can download this configuration back into the relay.

Download the Firmware Update File

Follow these steps to obtain the firmware upgrade file.

1. Go to <http://www.rockwellautomation.com/support/firmware.html> and choose Safety Components.
2. Click Firmware.
3. Click MSR57P Guardmaster Speed Monitoring Safety Relay [ZIP].
4. Unzip the file to your hard disk drive.

Corrected Anomaly

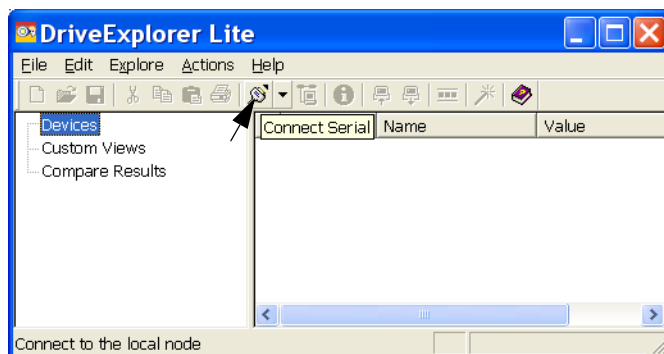
The anomaly corrected in this firmware revision update is listed in this table.


Anomaly	Description
<p>Under specific conditions, it may be possible to enter the hazardous area that is under access control of the MSR57P relay without actively monitoring the Enabling Switch Monitor Input (ESM_In) once inside the hazardous area.</p>	<p>This can occur only when the safety system is being transitioned from Safe Limited Speed (SLS) mode back to the normal Run mode, if the Safe Limited Speed input (SLS_In) is switched from OFF to ON before activating the Reset input (Reset_In). During this scenario, the ESM_In input is monitored only while the hazardous area's access gate is opening, that is, the Door Monitoring input (DM_In) transitions from closed (ON) to open (OFF). The enabling switch is not monitored for any other conditions while the SLS_In is ON. If the SLS_In is switched back to the OFF position (SLS monitoring requested) before the Reset_In is activated, then the ESM_In will not be monitored until the DM_In transitions from closed (ON) to open (OFF).</p> <p>This anomaly can occur for only these two configurations:</p> <ul style="list-style-type: none"> • When P21 [Safety Mode] is configured for 6 - Master, Safe Limited Speed with Door Monitoring and Enabling Switch Monitoring (LimSpd DM ES), and P22 [Reset Type] is configured for 1 - Manual reset • When P21 [Safety Mode] is configured for 6 - Master, Safe Limited Speed with Door Monitoring and Enabling Switch Monitoring (LimSpd DM ES), and P22 [Reset Type] is configured for 2 - Manual Monitored (Monitored) reset <p>Corrected firmware generates a Stop Category Fault if the DM_In input is detected in the open (OFF) state while the SLS_In input is ON. A Stop Category Fault causes the relay to initiate the configured Safe Stop Type.</p>

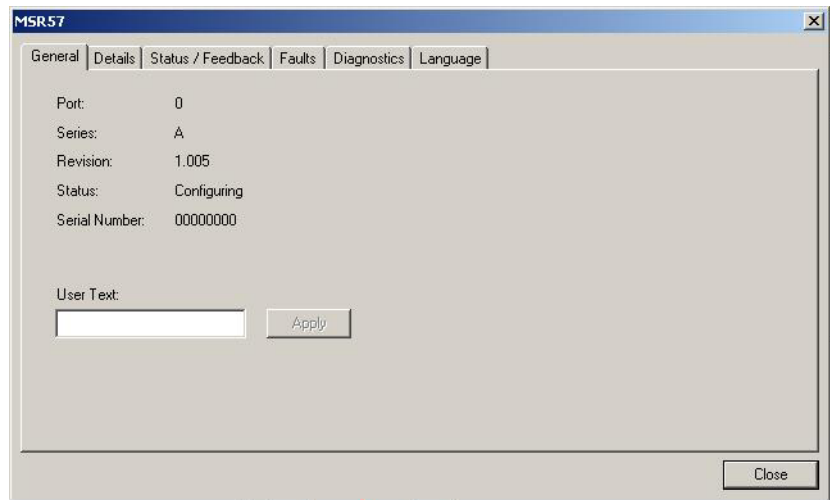
Update Firmware

Follow these steps to update the firmware of the MSR57P relay.

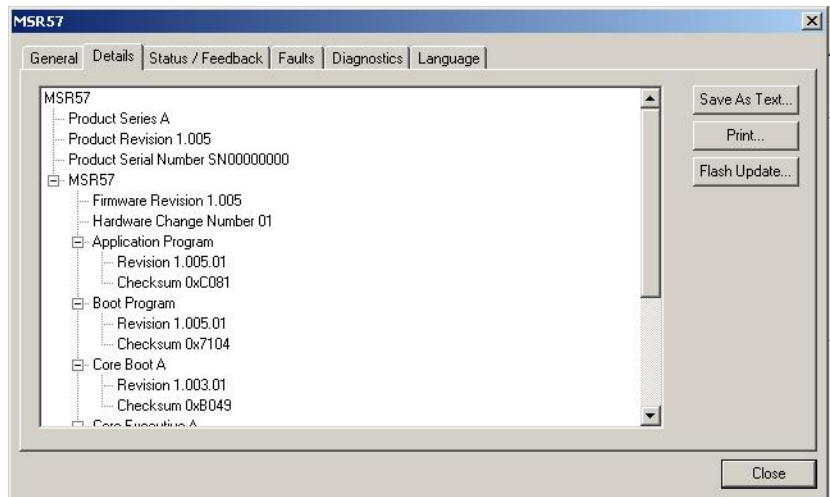
1. Open DriveExplorer software.
2. Click Connect to connect to the MSR57P relay.



3. Select the MSR57P relay and click the information icon  to open the relay Properties dialog box.

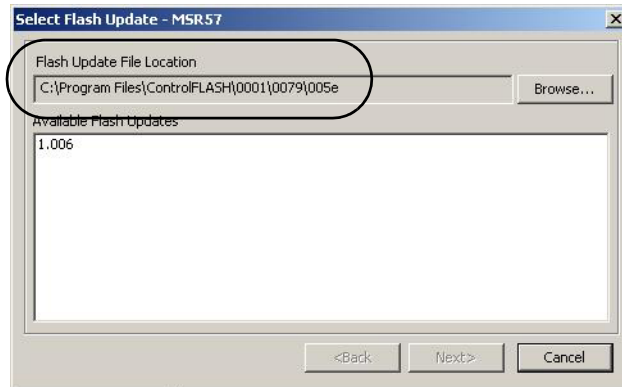


4. Click the Details tab to view the revision levels currently installed on your MSR57P relay.



5. Click Flash Update.
6. Click Browse.

- Find the directory where you installed the files and choose that directory.



- Select 1.006 and click Next.
- On the Confirm Flash Update dialog box, click FLASH to start the update.




It takes approximately 7...10 minutes to update the relay. The Executing Flash Update dialog box tracks the progress of the update.

- When the update is complete, click Close.
- Click Yes when DriveExplorer software requests to reconnect to the MSR57P relay.

Confirm the Update

Follow these steps to confirm that the update was successful.

1. Select the MSR57P relay and click the information icon  to open the relay Properties dialog box.
2. Click the Details tab and verify that these revisions are shown.

File	Revision	Checksum
Application Program	1.006.01	0x8481
Boot Program	1.006.01	0x3504
Core Boot A	1.003.01	0xB049
Core Executive A	1.006.01	0x4F65
Core Boot B	1.003.01	0xE9A3
Core Executive B	1.006.01	0xA697

3. Close the MSR57P dialog box.

Download Your Saved Configuration File

Follow these steps to reload your configuration to the relay.

1. In the DriveExplorer tree view, expand the MSR57P relay.
2. From the Actions menu, choose Download Saved File.
3. Click Yes to acknowledge that set-up values may change.
4. Browse to the configuration file you saved before performing the firmware update (*.csf file).
5. Select your file and click Open.
6. Expand the Parameters and choose the Security group.
7. Compare the value of P10 [Signature ID] to the value you recorded before the upgrade.

The two values should be the same.

IMPORTANT

After you verify that the Signature ID values match, you must revalidate your application, following the guidelines in the Guardmaster MSR57P Speed Monitoring Safety Relay User Manual, publication [440R-UM004](#).

8. Place the relay in Run mode by setting the P6 [Operating Mode] parameter to 1.

Additional Resources

For information on installing, configuring, and operating an MSR57P relay, including safety requirements, refer to the Guardmaster MSR57P Speed Monitoring Safety Relay User Manual, publication [440R-UM004](#).

You can view or download publications at:

<http://www.rockwellautomation.com/literature>. To order paper copies of technical documentation, contact your local Rockwell Automation distributor or sales representative.

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For an additional level of technical phone support for installation, configuration, and troubleshooting, we offer TechConnect support programs. For more information, contact your local distributor or Rockwell Automation representative, or visit <http://www.rockwellautomation.com/support/>.

Installation Assistance

If you experience an anomaly within the first 24 hours of installation, review the information that is contained in this manual.

You can contact Customer Support for initial help in getting your product up and running.

United States or Canada	1.440.646.3434
Outside United States or Canada	Use the Worldwide Locator at http://www.rockwellautomation.com/support/americas/phone_en.html , or contact your local Rockwell Automation representative.

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